From Energy to Services

Technology as a key enabler for energy systems transformation

Grid-Interop
Driving to Grid 2020

Abstract

- Fundamental changes are expected and already underway in the E&U industry. These changes and disruptive plays do not touch only the E&U industry by itself, but also interlinks into other industries and domains. New business challenges and models and probably also new players and new roles are coming up.
- Based on real client projects and experiences, the presentation highlights the major architectural patterns aligned with an enterprise architecture approach. It described the architectural concept to establish a integration platform not only for technical systems but also between various market roles and players. Dividing the solution into 5 major areas including value added services, business services and technical services) allows for a good business discussion and technical reuse and capability proof points.
- To clarify theses architectural concepts and patterns the presentation elaborates on 4 individual key scenarios including energy efficiency, meter roll-out support, virtual power plant and low voltage grid monitoring. This scenarios clarify the possibilities and business approach as well as the architectural concept of the platform by providing the right basis for the energy platform of the future. One of the major advantages of the conceptual solution design is to focus on what to do with the information you can collect (business value) and how to best integrate across systems and the eco system.
- The presentation is based on real customer experience and highlights an enterprise architectural approach on addressing smarter energy requirements and solution concepts.

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Goal

- After this presentation you understand the key challenges in the E&U industry, the influence in day to day life and the value of using a smarter energy service hub reduce costs and addresses new quality of services towards B2C and B2B.
- This presentation targets Line of Business responsible in Smart Metering, Smart Grid and Smart Generation as well as energy Retail and energy efficiency.
- With the platform concept, it also addresses smarter cities and associated industries and Business Architects.

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Energiewende
(Energy Systems Transformation)
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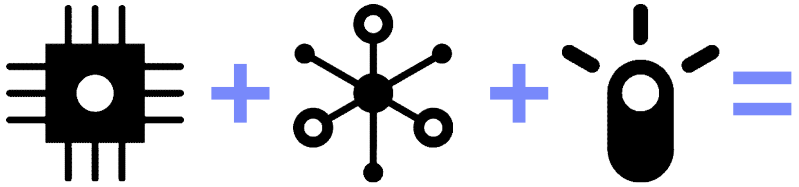
An opportunity for energy & utilities organizations to think and act in new ways.



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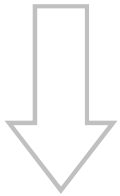

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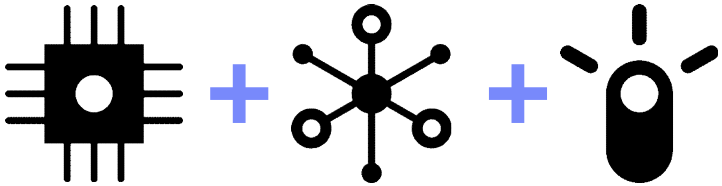

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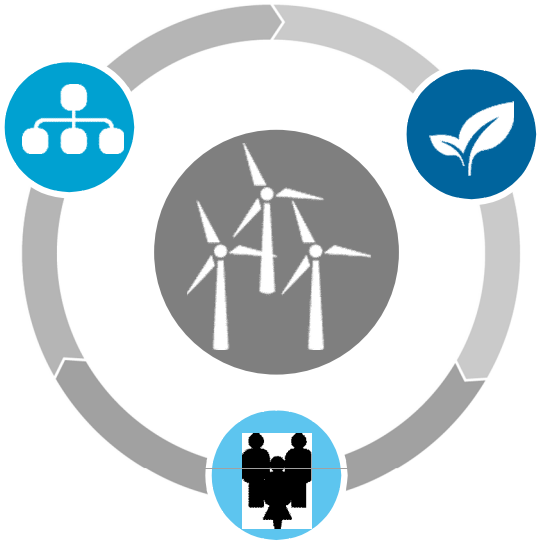

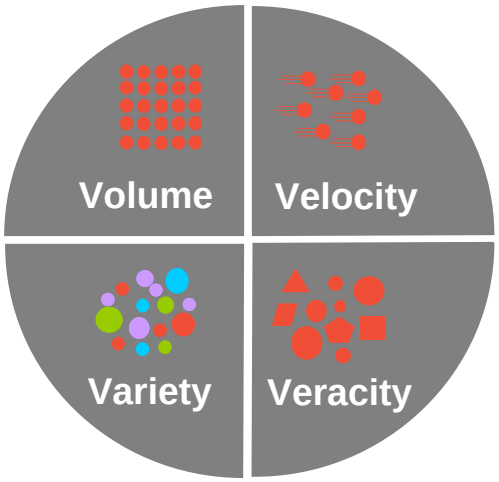

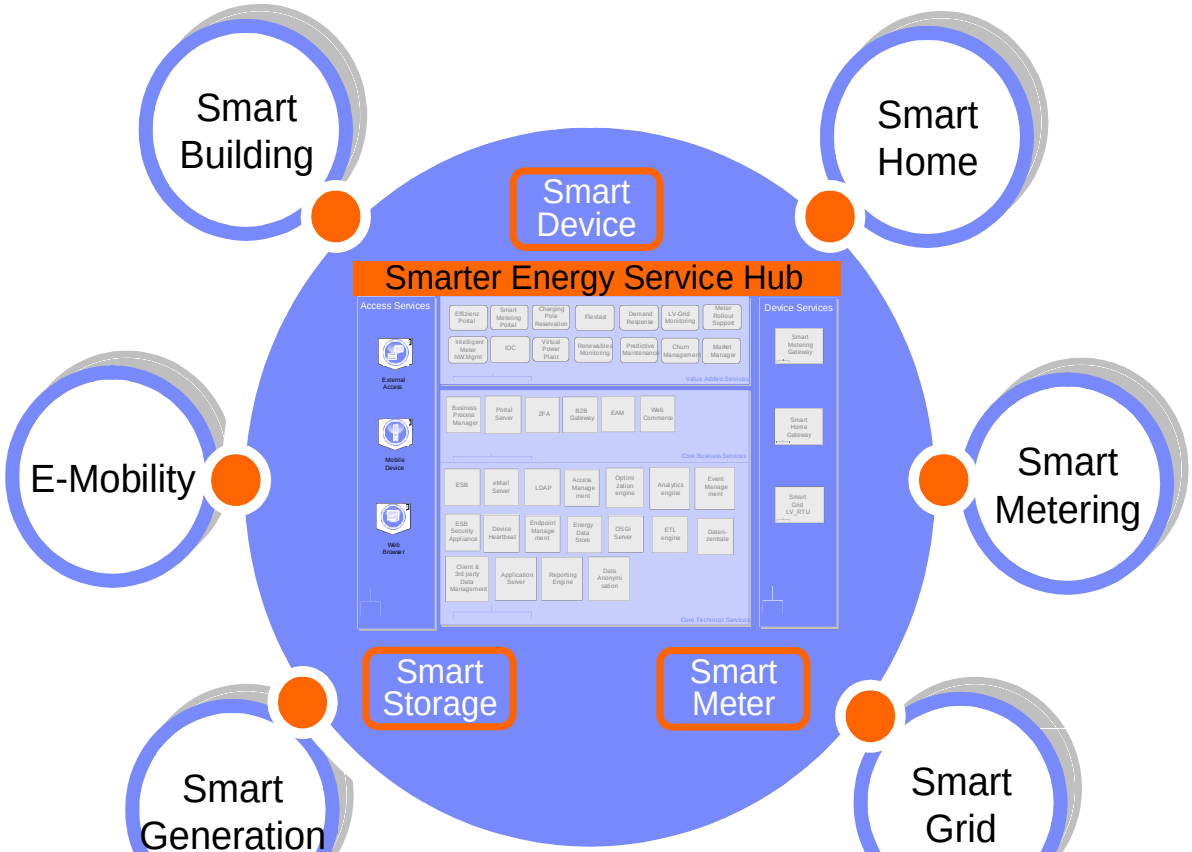

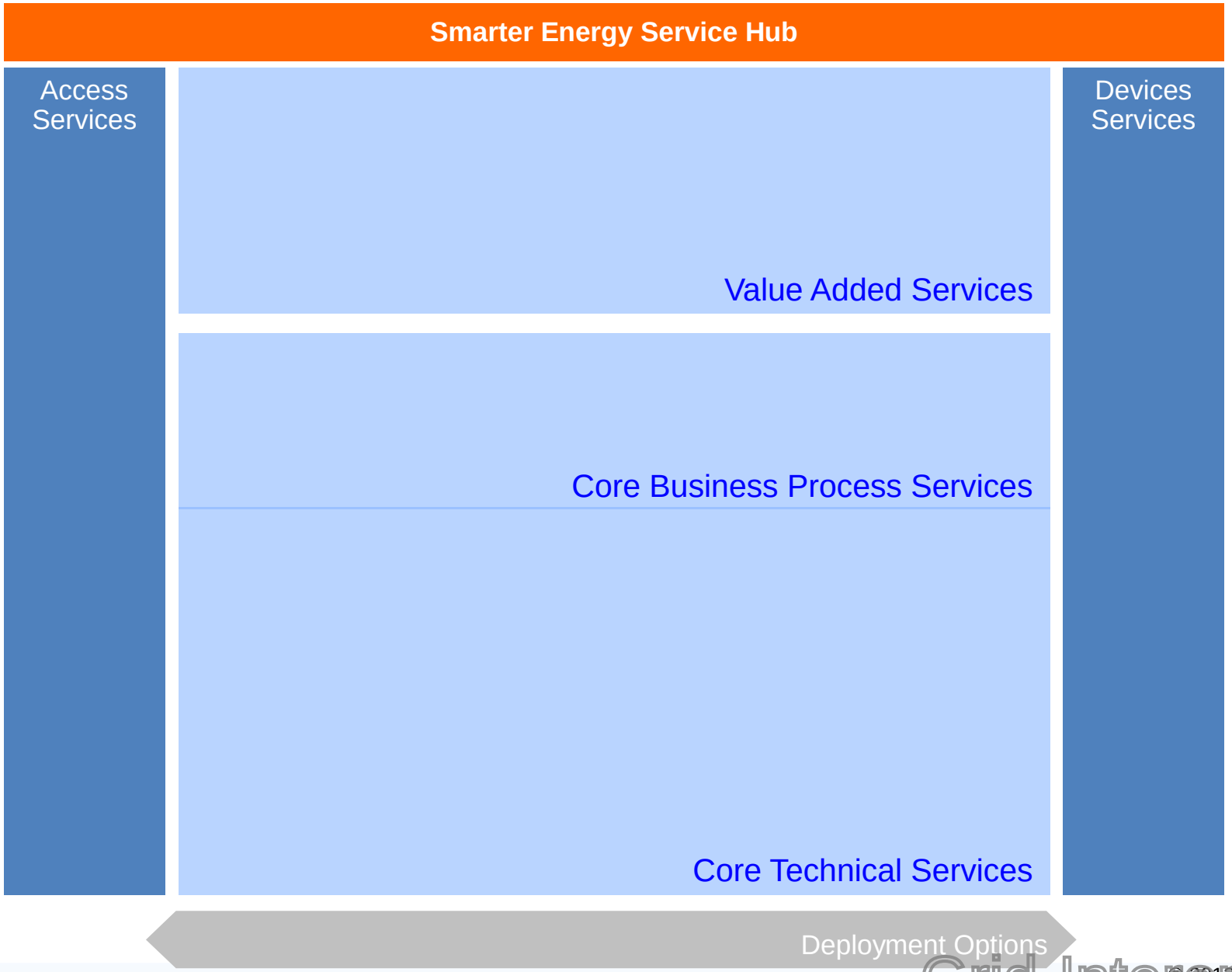

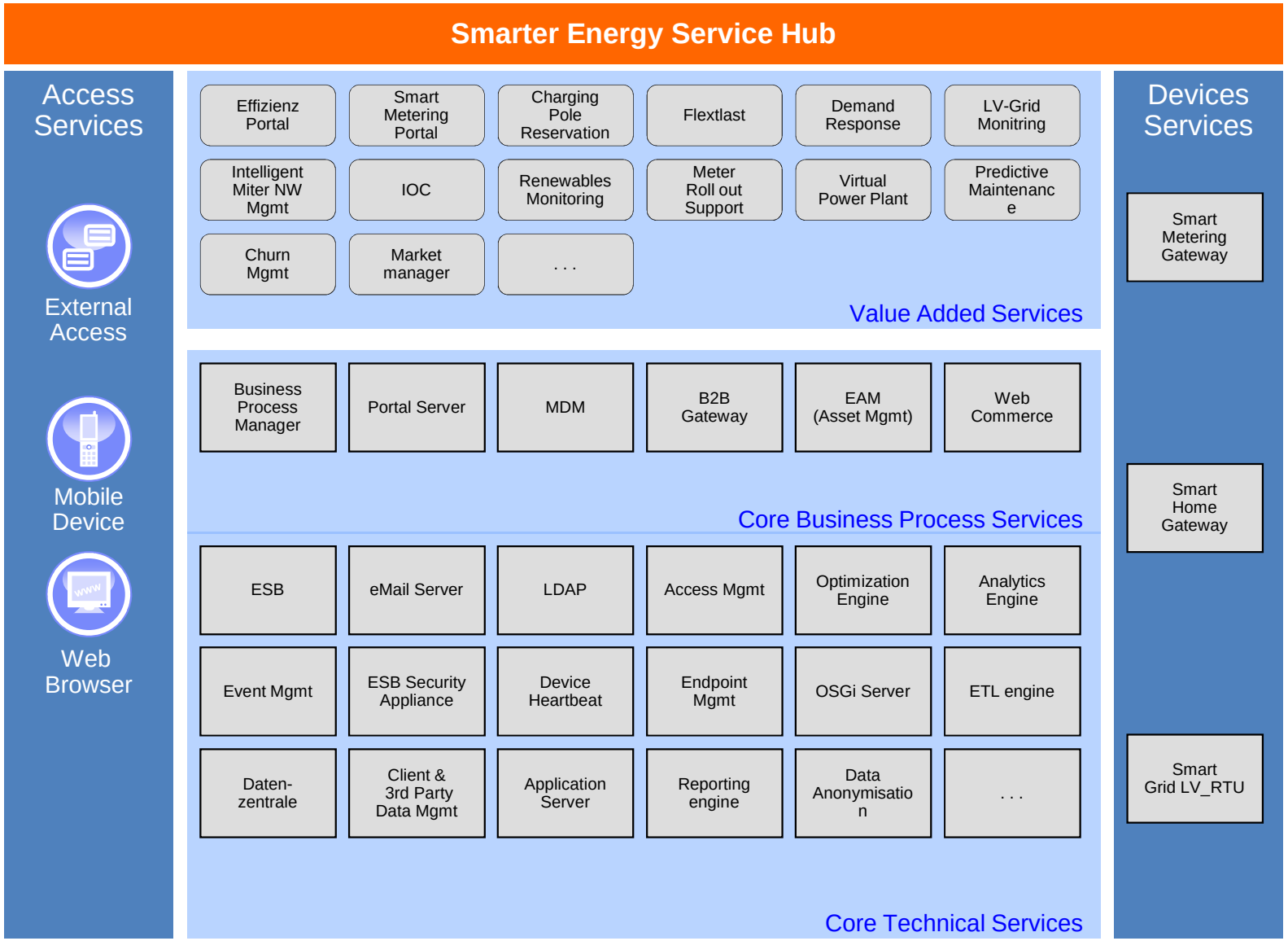

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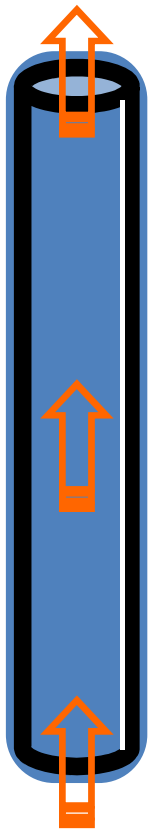
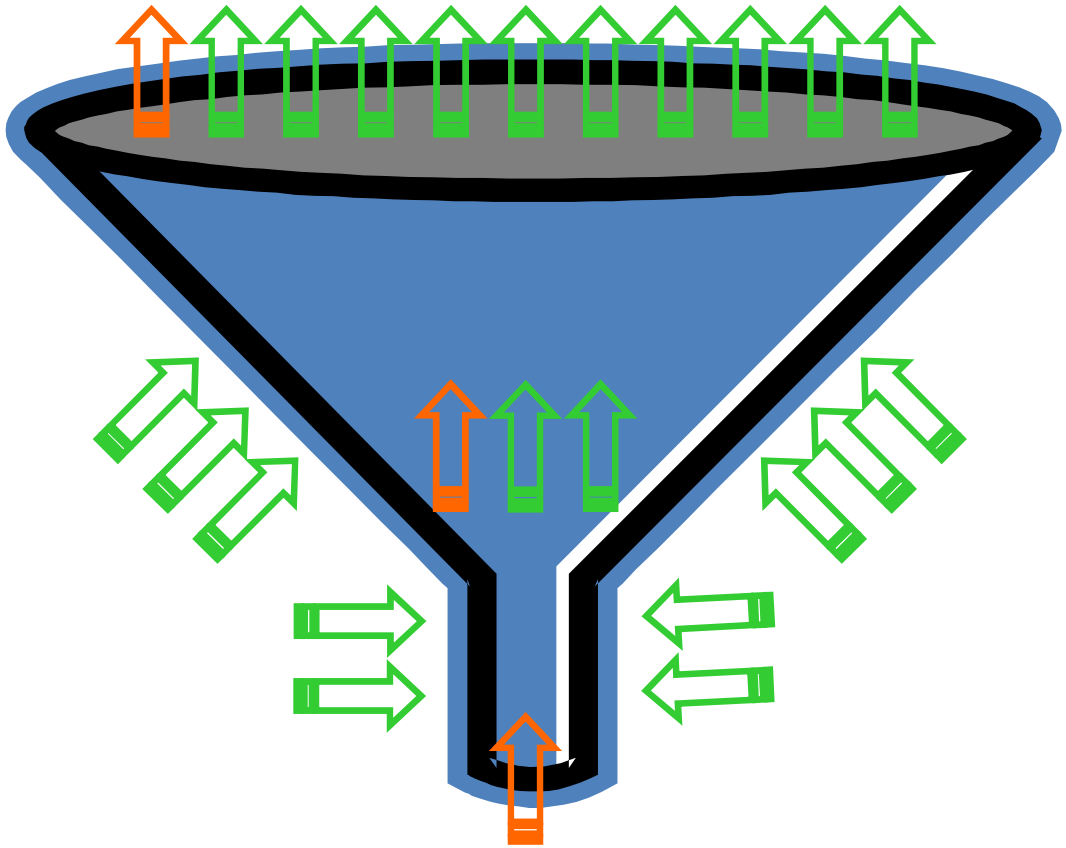
Reuse of a number of sources (like smart meters) to provide additional business value and solutions.



Classical approach
Sample : Meter reading to Cash
Single usage of data and application



Disruptive or innovative approach
Sample : smarter energy service hub
multiple reuse of same data and core components to generate new business solutions and support agile business development and decision support

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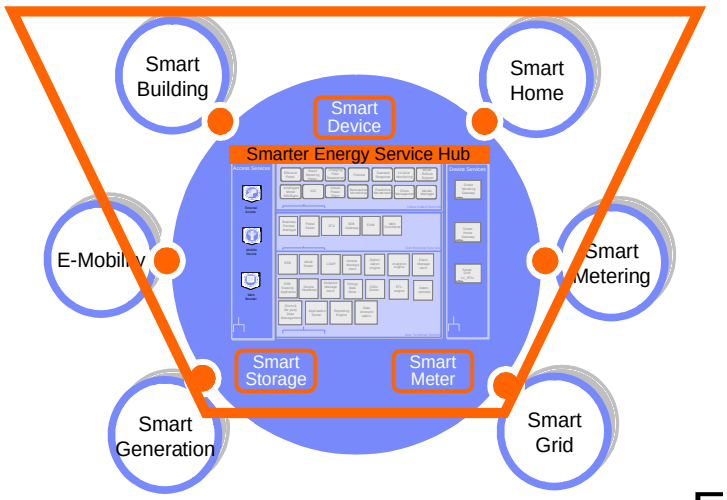
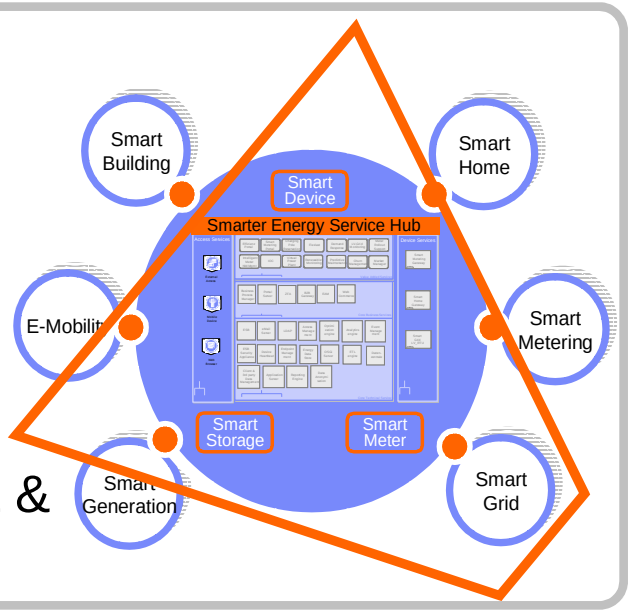
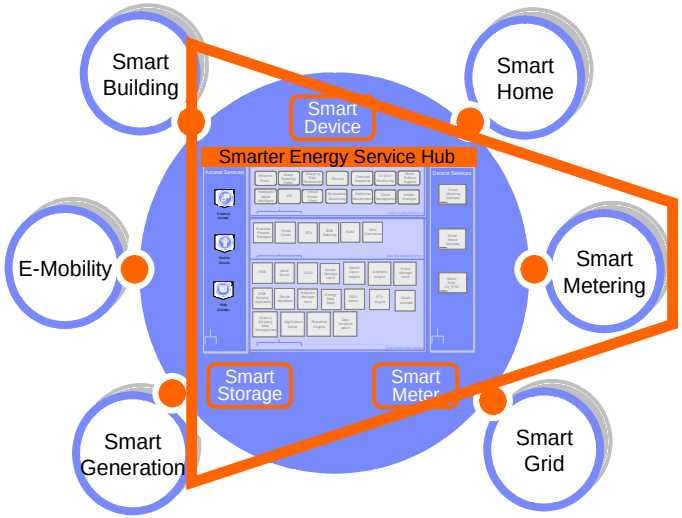
Conceptual model to cover multiple business scenarios



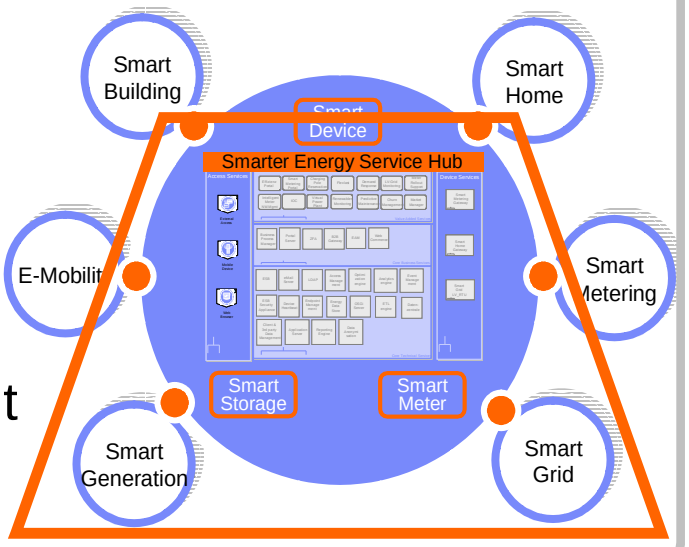
Energy Efficiency



LV-Grid Management & Optimization

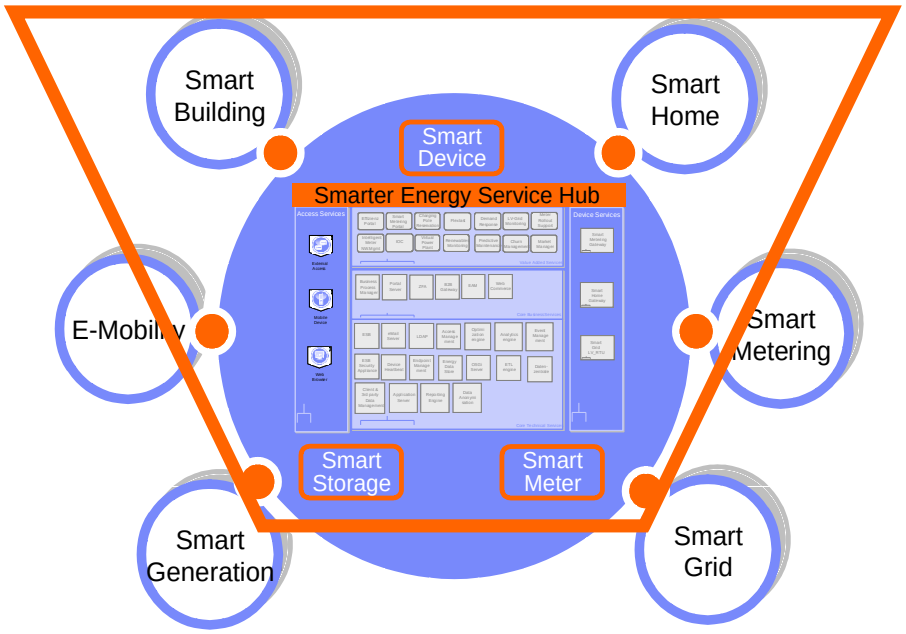


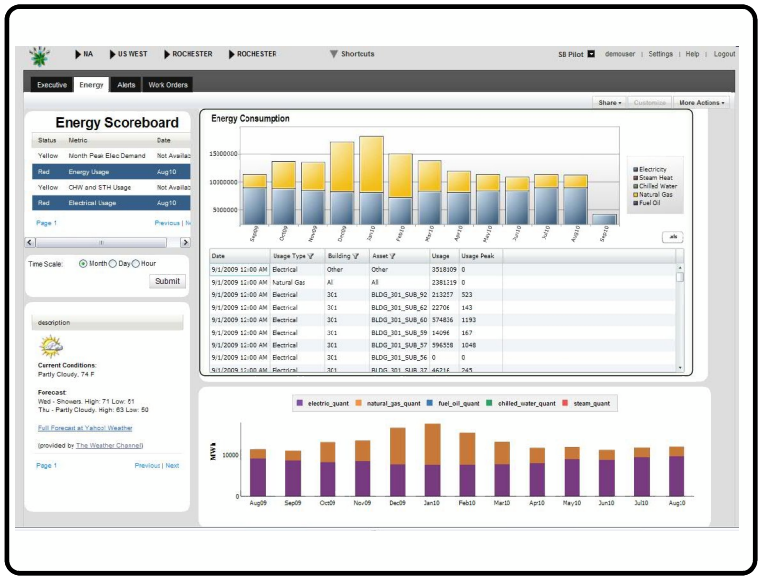
Rollout Support



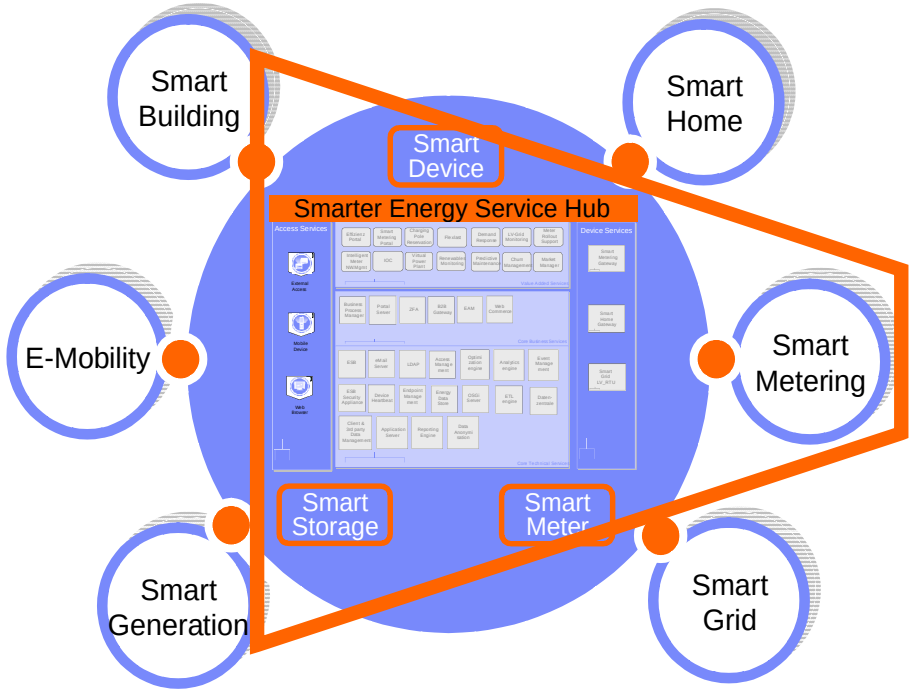
Virtual Powerplant VPP

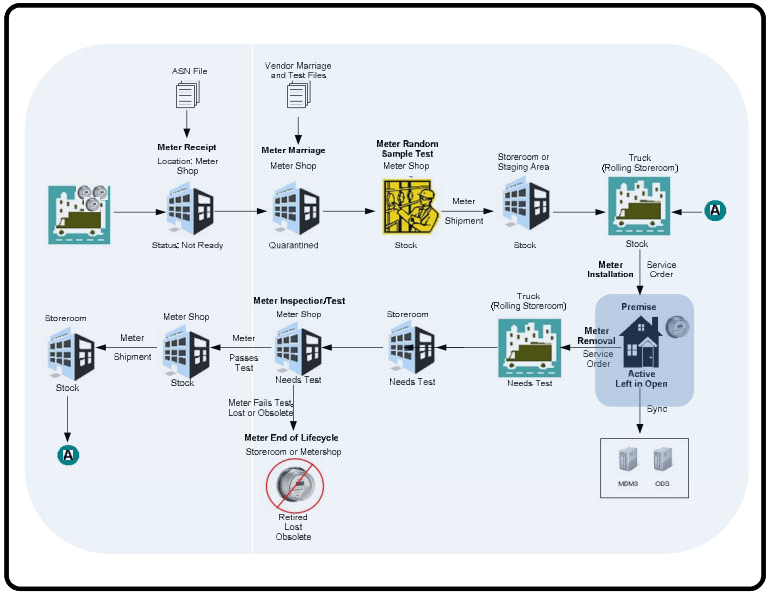
Scenario 1 – Energy Efficiency



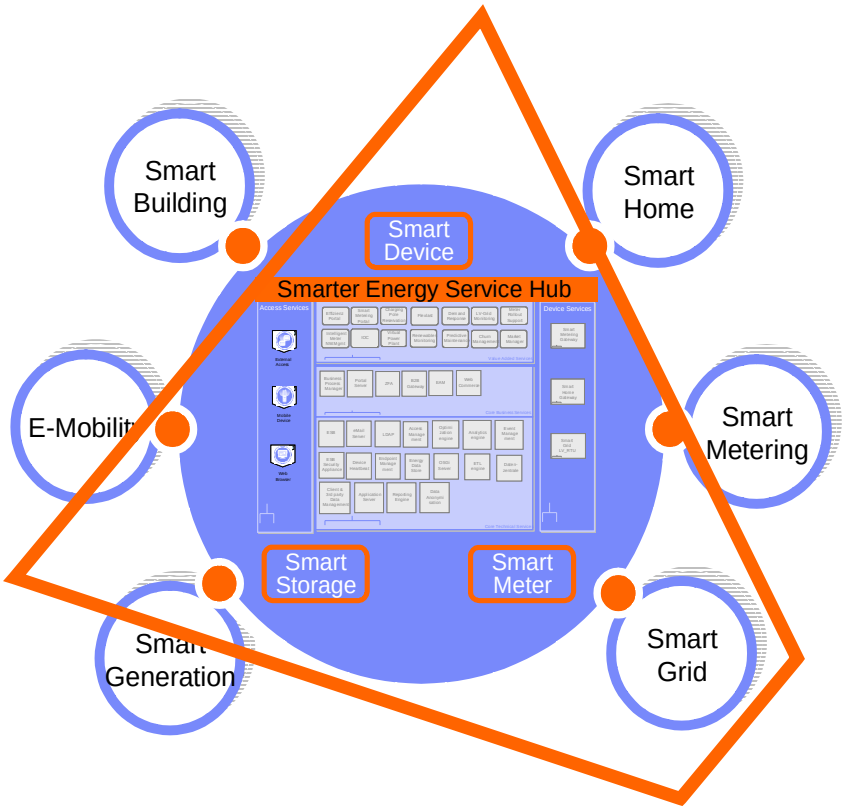


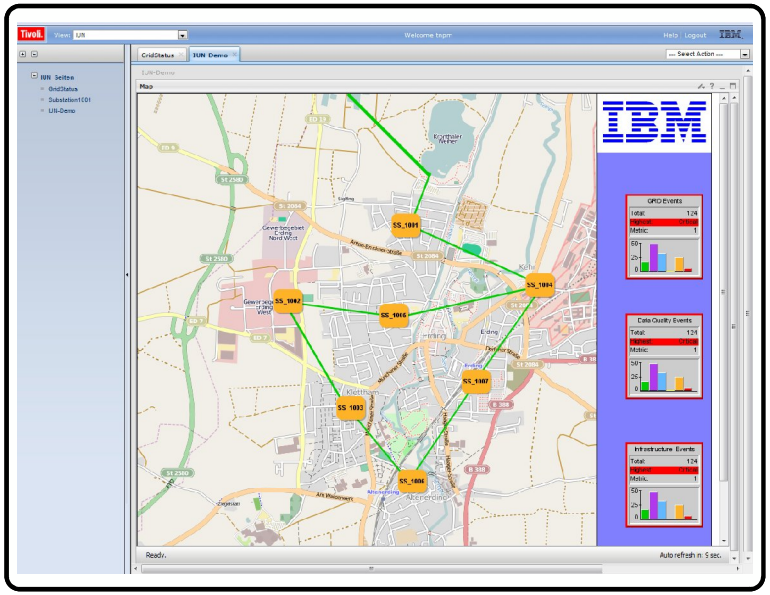
Scenario 2 – Rollout Support

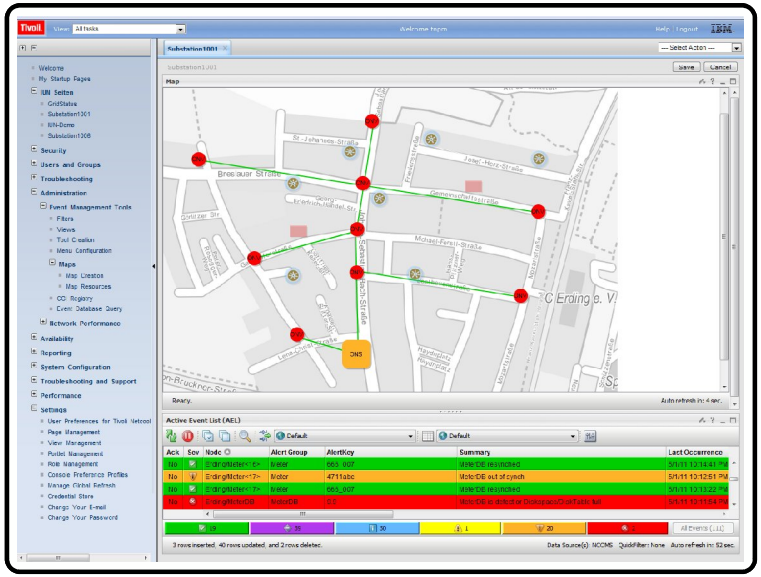




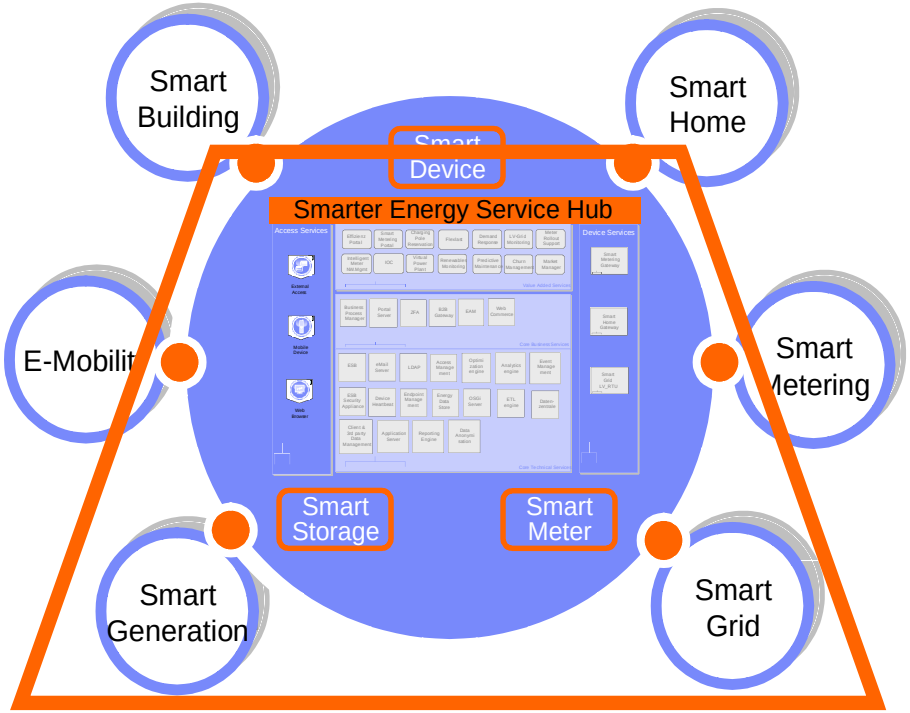
Scenario 3 – LV-Grid Management & Optimization

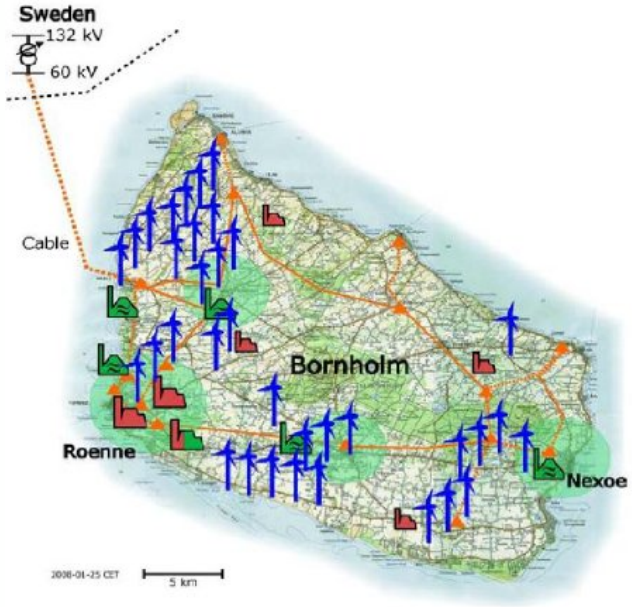


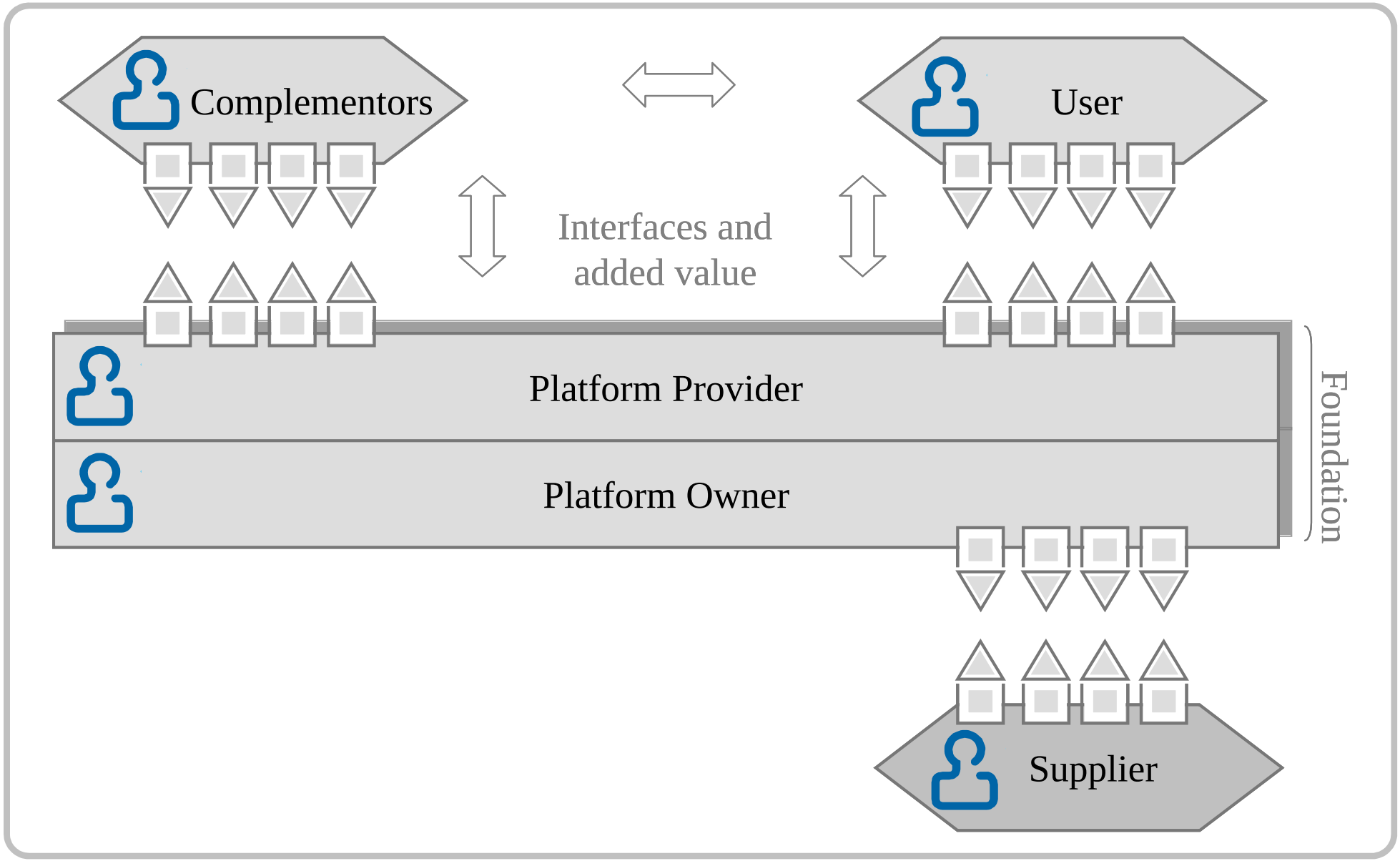




Scenario 4 – Virtual Power Plant - VPP







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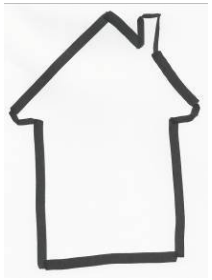
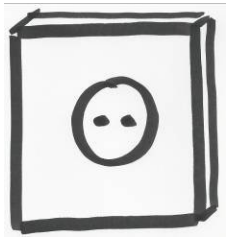
Business Models and Industry Interconnect

Smart Meter

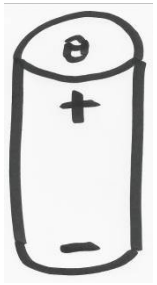
Smart Home



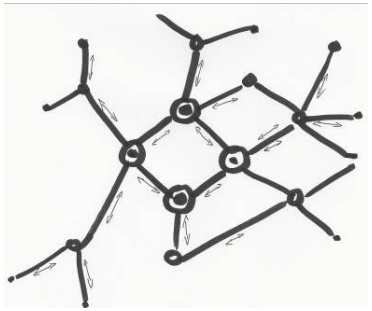
Smart Plug



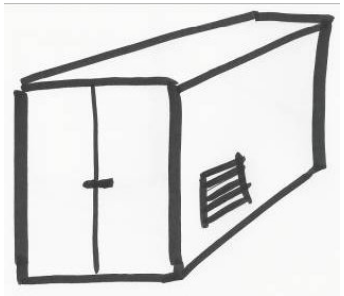
Smart Storage



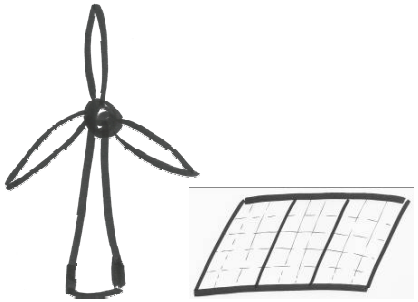
Smart Grid



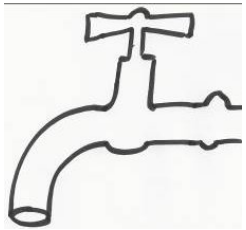
Smart Substation



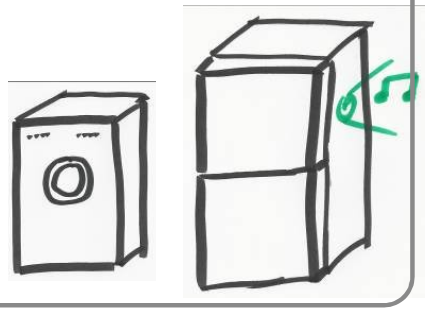
Smart Generation



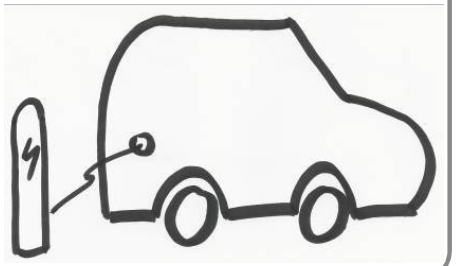
Smart Water



Smart Appliance

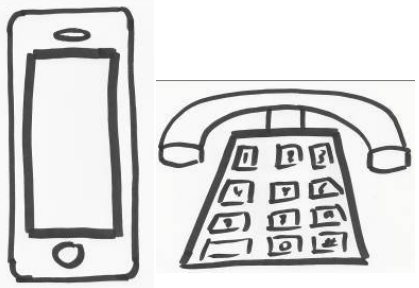


Smart Vehicle



Smart Work

Smart Phone



Action

Integration & Automation

Optimization

Sustainability

Tools and Processes

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